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Conference Abstract

Recognising Indigenous Provenance in Biodiversity Records

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Abstract

The advent of data-driven technologies and the increasing demand for data have brought about unique challenges for Indigenous data governance. The CARE principles emphasize Collective Benefit, Authority, Responsibility, and Ethics as essential pillars for ensuring that Indigenous data rights are upheld, Indigenous knowledge is protected, and Indigenous Peoples are active participants in data governance processes (Carroll et al. 2020, Carroll et al. 2021). Identifying tangible activities and providing guidance to centre Indigenous perspectives provide a comprehensive approach to address the complexities of Indigenous data governance in a rapidly evolving data landscape (Gupta et al. 2023, Jennings et al. 2023, Sterner and Elliott 2023).

Biodiversity research has increasingly recognized the intertwined relationship between biological diversity and cultural practices, leading to discussions about how research can strengthen the evidence base, build trust, enhance legitimacy for decision making (Alexander et al. 2021) and explore requirements for Indigenous metadata (Jennings et al. 2023). An Indigenous Metadata Bundle Communique, produced following an Indigenous Metadata Symposium, recommended the initial categories as: Governance, Provenance, Lands & Waters, Protocols, and Local Contexts Notices & Labels. Traditional Knowledge (TK) and Biocultural (BC) Labels have emerged as essential tools for recognising and maintaining Indigenous provenance, protocols and permissions in records for both natural

ecosystems and cultural heritage (Anderson et al. 2020, Liggins et al. 2021) emphasizing the importance of Indigenous Peoples and local knowledge systems in research and digital management. Biocultural labels acknowledge the intricate links between biodiversity and cultural diversity, emphasizing the role of indigenous communities in preserving biodiversity through their traditional practices (Hudson et al. 2021). By recognizing the intrinsic value of these relationships, TK and BC labels not only contribute to a more holistic understanding of biodiversity but also promote ethical considerations and mutual respect between researchers and local communities, fostering collaborative partnerships for research and conservation initiatives (McCartney et al. 2023).

Addressing the CARE Principles for Indigenous Data Governance in biodiversity research introduces several challenges and opportunities. Ethical concerns regarding recognition of Indigenous rights and interests in data (Hudson et al. 2023), intellectual property rights, cultural appropriation, and equitable benefit sharing, must be navigated sensitively (Carroll et al. 2022b, Golan et al. 2022). Moreover, fostering effective communication between researchers and communities is paramount for ensuring the accuracy and authenticity of Indigenous metadata and protocols for appropriate use (Carroll et al. 2022a). However, these challenges are offset by the potential for enriching scientific knowledge, enhancing policy frameworks, and strengthening community-based conservation efforts.

Keywords

CARE principles, Indigenous data governance, Indigenous metadata, traditional knowledge labels, biocultural labels

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Conflicts of interest

The authors have declared that no competing interests exist.

References

- Alexander SM, Provencher JF, Henri DA, et al. (2021) Bridging Indigenous and Western sciences in freshwater research, monitoring, and management in Canada. Ecological Solutions and Evidence 2: 12085. https://doi.org/10.1002/2688-8319.12085
- Anderson J, Francis J, Hudson M (2020) Traditional Knowledge Labels: A Strategy for Recognising. In: Belcourt T, Igloliorte H, Robinson D (Eds) Cultural Intellectual Property Rights Compendium on Protecting the Arts and Expressions of Indigenous Peoples.
 Department of Canadian Heritage
- Carroll SC, Garba I, O.L. F, Holbrook J, Lovett R, Materechera S, Parsons M, Raseroka K, Rodriguez-Lonebear D, Rowe R, Sara R, Walker JD, Anderson J, Hudson M (2020)
 The CARE Principles for Indigenous Data Governance. Data Science Journal 19 (43):
 1-12. https://doi.org/10.5334/dsj-2020-043.
- Carroll SR, Herczog E, Hudson M, Russell K, Stall S (2021) Operationalizing the FAIR and CARE Principles. Nature Scientific Data 8 (108): 1-6. https://doi.org/10.1038/s41597-021-00892-0
- Carroll SR, Garba I, Plevel R, Small-Rodriguez D, Hiratsuka VY, Hudson M, Garrison NA (2022a) Using Indigenous Standards to Implement the CARE Principles: Setting Expectations through Tribal Research Codes. Frontiers in Genetics 13 (823309). https://doi.org/10.3389/fgene.2022.823309
- Carroll SR, Plevel R, Jennings L, Garba I, Sterling R, Cordova-Marks FM, Hiratsuka V, Hudson M, Garrison NA (2022b) Extending the CARE Principles from tribal research policies to benefit sharing in genomic research. Frontiers in Genetics 13 (10). https://doi.org/10.3389/fgene.2022.1052620
- Golan J, Riddle K, Hudson M, Anderson J, Kusabs N, Coltman T (2022) Benefit sharing: Why inclusive provenance metadata matter. Frontiers in Genetics 13 (1014044). https://doi.org/10.3389/fgene.2022.1014044
- Gupta N, Martindale A, Supernant K, Elvidge M (2023) The CARE Principles and the Reuse, Sharing, and Curation of Indigenous Data in Canadian Archaeology. Advances in Archaeological Practice 11 (1): 76-89. https://doi.org/10.1017/aap.2022.33
- Hudson M, Anderson J, Sterling R (2021) Indigenous Data Sovereignty From Intellectual Property to Traditional Knowledge Labels. In: Ruckstuhl K, Kawharu M, Amoamo M (Eds) He Pou Hiringa Grounding Science and Technology in Te Ao Māori . Bridget Williams Books, Wellington. https://doi.org/10.7810/9781988587486 9
- Hudson M, Carroll SR, Anderson J, Blackwater D, Cordova-Marks FM, Cummins J, David-Chavez D, Fernandez A, Garba I, Hiraldo D, Jäger MB, Jennings LL, Martinez A, Sterling R, Walker JD, Rowe RK (2023) Indigenous Peoples' Rights in Data: a contribution toward Indigenous Research Sovereignty. Frontiers in Research Metrics and Analytics 8 (1173805). https://doi.org/10.3389/frma.2023.1173805
- Jennings L, Anderson T, Martinez A, et al. (2023) Applying the 'CARE Principles for Indigenous Data Governance' to ecology and biodiversity research. Nature Ecology & Evolution https://doi.org/10.1038/s41559-023-02161-2

- Liggins L, Hudson M, Anderson J (2021) Creating space for Indigenous perspectives on access and benefit-sharing: Encouraging researcher use of the Local Contexts Notices.
 Molecular Ecology https://doi.org/10.1111/mec.15918
- McCartney AM, Head MA, Tsosie KS, et al. (2023) Indigenous peoples and local communities as partners in the sequencing of global eukaryotic biodiversity. npj biodiversity 2: 8. https://doi.org/10.1038/s44185-023-00013-7
- Sterner B, Elliott S (2023) How data governance principles influence participation in biodiversity science. Science as Culture https://doi.org/
 10.1080/09505431.2023.2214155